

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Stephen W. Palan (Reg. No. 43,420) on 09/29/10.

The application has been amended as follows:

For the claims:

1. (**Twice-Currently-Amended**) A circuit board device for an information apparatus comprising:

a base board having mounted thereupon a plurality of low-frequency electronic components; and

a multilayer module board mounted at one surface of the base board and having mounted thereupon a plurality of high-frequency electronic components including at least a CPU and a memory, wherein:

the multilayer module board is one of (i) a low-end module board, (ii) a high-speed module board that operates at higher speed than the low-end module board or (iii) an advanced function module board having more functions than the low-end module board; and

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the base board is configured to accept interchangeably a connection with a multilayer board that is (i) the low-end module board, (ii) the high-speed module board and (iii) the advanced function module board,

the plurality of high-frequency electronic components including a CPU and a memory mounted at, at least, a surface thereof,

the plurality of high-frequency electronic components are connected with one another through a wiring patterns formed at an inner layer thereof, and

an overall shape of the multilayer module board is rectangular and the multilayer module board comprises four connector terminals provided as separate members each soldered onto one of four peripheral edges thereof.

5. **(Cancelled)**.

6. **(Cancelled)**.

7. **(Twice-Currently-Amended)** The multilayer module board according to claim 6 1, wherein:

the four connector terminals each include a narrow, elongated base portion constituted of resin and a plurality of pins fixed to the base portion; and

the four connector terminals are each carried with the base portion attached to a transfer adapter and the four connector terminals are connected through soldering onto a rear surface of the board while attached to the transfer adapter.

8. **(Twice-Currently-Amended)** The multilayer module board according to claim 6 1, wherein:

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the four connector terminals each include

- a narrow, elongated base portion constituted of resin;
- a plurality of pins fixed to the base portion;
- aligning pins projecting at both ends of the base portion to be used when soldering the connector terminal onto a rear surface of the board; and
- inclined surfaces for position control formed at both ends of the base portion to be used when soldering the connector terminal;

a pair of positioning holes at which the aligning pins are loosely fitted are formed at each of four corners of the board; and

positions of the connector terminals are controlled when soldering the connector terminals as the inclined surfaces for position control at adjacent connector terminals come into contact with each other while the aligning pins are loosely fitted at the positioning holes.

9. **(Twice-Currently-Amended)** A circuit board device, comprising:
- a base board; and
 - a multilayer module board mounted on the base board, the multilayer module board comprising:
 - a plurality of high-frequency electronic components including a CPU and a memory mounted at, at least, a surface thereof, wherein:
 - the plurality of high-frequency electronic components are connected with one another through a wiring pattern formed at an inner layer thereof;

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an overall shape of the multilayer module board is rectangular and the multilayer module board comprises four connector terminals provided as separate members each soldered onto one of four peripheral edges thereof;

the four connector terminals each include a narrow, elongated base portion constituted of resin and a plurality of pins fixed to the base portion; and

after the four connector terminals are each carried with the base portion attached to a transfer adapter, the four connector terminals are connected through soldering onto a rear surface of the board while attached to the transfer adapter.

10. **(Twice-Currently-Amended)** A circuit board device, comprising:

a base board; and

a multilayer module board mounted on the base board, the multilayer module board comprising:

a plurality of high-frequency electronic components including a CPU and a memory mounted at, at least, one surface thereof, wherein:

the plurality of high-frequency electronic components are connected with one another through a wiring pattern formed at an inner layer thereof;

an overall shape of the multilayer module board is rectangular and the multilayer module board comprises four connector terminals provided as separate members each soldered onto one of four peripheral edges thereof;

the four connector terminals each include

a narrow, elongated base portion constituted of resin;

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a plurality of pins fixed to the base portion;
aligning pins projecting at both ends of the base portion to be used when soldering the connector terminal onto a rear surface of the board; and
inclined surfaces for position control formed at both ends of the base portion to be used when soldering the connector terminal;
a pair of positioning holes at which the aligning pins are loosely fitted are formed at each of four corners of the board; and
positions of the connector terminals are controlled when soldering the connector terminals as the inclined surfaces for position control at adjacent connector terminals come into contact with each other while the positioning pins are loosely fitted at the positioning holes.

Allowable Subject Matter

2. Claims 1, 3, 7-10 are allowed (renumber claims are 1-6).

The following is an examiner's statement of reasons for allowance:

In response to remarks and claimed amendments made in Applicant's Amendment filed on 07/06/10, and further, with the examiner amendment for the claims above, applicant's arguments are persuasive. Amended claims have been considered and upon conclusion of a comprehensive search of the prior arts. The Office indicates that the claims, as amended, are allowable.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ito et al discloses related art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T. Dinh whose telephone number is 571-272-1929. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lee Jinhee can be reached on 571-272-1977. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Tuan T Dinh/
Primary Examiner, Art Unit 2841.